

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application.

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Listing of Claims:

1. (currently amended) A modular computer system for mounting in a multi-tiered support, comprising:

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a computer chassis configured for mounting in the multi-tiered support;

a first computer component within the computer chassis;

an evaporator in thermal communication with the first computer component, the evaporator being configured to dissipate heat from the first computer component by ~~evaporating liquid coolant from~~ using that heat to drive a stream of liquid coolant to

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~~produce~~ through a phase change into a stream of coolant vapor;

a condenser configured to dissipate heat from the stream of coolant vapor to add liquid coolant to the stream of liquid coolant;

an air mover configured to cool the condenser; and

one or more additional computer components within the computer chassis, wherein the air mover causes airflow that directly cools the one or more additional components;

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wherein the air mover draws air through the condenser, and blows air toward the one or more additional computer components.

2. (original) The apparatus of claim 1, wherein the chassis is a 1U rackmount chassis.

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3. (original) The apparatus of claim 1, wherein the evaporator and the condenser are configured as a gravity-driven, pumpless, closed-loop cooling system.

4. (original) The apparatus of claim 1, wherein the evaporator and the condenser are part of a closed-loop cooling system, and further comprising a coolant pump configured to pump coolant through the closed-loop cooling system.

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5. (original) The apparatus of claim 1, wherein the condenser defines a downward coolant pathway configured for the coolant to travel gravitationally downward while condensing from the stream of coolant vapor to the stream of liquid coolant.

5 6. (previously presented) The apparatus of claim 1, and further comprising:
a second computer component within the chassis; and
a second evaporator in thermal communication with the second computer
component, the second evaporator being configured to dissipate heat from the second
computer component by evaporating liquid coolant from a stream of liquid coolant to
10 produce a second stream of coolant vapor;
wherein the condenser is configured to dissipate heat from the second stream of
coolant vapor to add liquid coolant to the stream of liquid coolant.

7. (canceled)

15 8. (previously presented) The apparatus of claim 6, wherein:
the stream of liquid coolant and the first stream of coolant vapor both extend from
the first evaporator to the second evaporator through a common passage; and
the first and second streams of coolant vapor intermix and extend from the second
20 evaporator to the condenser through a common passage.

9. (previously presented) The apparatus of claim 1, wherein the air mover is further
configured to move air heated by the condenser out one or more exhaust vents in the
chassis.

25 10. (original) The apparatus of claim 9, wherein:
the air mover is a plurality of fans extending across an intermediate portion of the
chassis to define two chambers, the fans being configured to move air from a first chamber
of the two chambers to a second chamber of the two chambers; and
30 the chassis exhaust vents ventilate the second chamber.

11. (canceled)

12. (previously presented) The apparatus of claim 1, wherein the air mover blows directly toward the one or more additional computer components.

13. (canceled)

14. (previously presented) A modular computer system for mounting in a multi-tiered support, comprising:

a computer chassis configured for mounting in the multi-tiered support;

a first computer component within the computer chassis;

a means for evaporating liquid coolant from a stream of liquid coolant, using heat from the first computer component, to produce a stream of coolant vapor;

a means for removing heat from the stream of coolant vapor;

a means for transferring the removed heat out of the chassis; and

one or more additional computer components within the computer chassis, wherein the means for transferring causes airflow that directly cools the one or more additional components;

wherein the means for transferring draws air through the condenser, and blows air toward the one or more additional computer components.

15. (previously presented) A method for cooling a first computer component, comprising:

mounting a computer chassis of a modular computer system in a multi-tiered support, the first computer component being located within the computer chassis;

evaporating liquid coolant from a stream of liquid coolant, using heat from the first computer component, to produce a stream of coolant vapor;

removing heat from the stream of coolant vapor, in a condenser, to form the stream of liquid coolant; and

transferring the removed heat out of the chassis by absorbing the heat in a stream of air drawn through the condenser, wherein the stream of air is blown toward the one or more additional computer components to directly cool the one or more additional computer components.

16. (original) The method of claim 15, wherein the chassis is a 1U rackmount chassis.

17. (original) The method of claim 15, wherein the chassis is a thin rackmount chassis.

5 18. (previously presented) The method of claim 15, wherein the step of removing is conducted in a downward coolant pathway configured for the coolant to travel gravitationally downward while condensing from the stream of coolant vapor to the stream of liquid coolant.

10 19. (currently amended) A modular computer system for mounting in a multi-tiered support, comprising:

a computer chassis configured for mounting in the multi-tiered support;

a computer component within the computer chassis;

15 an evaporator in thermal communication with the computer component, the evaporator being configured to dissipate heat from the computer component by

~~evaporating liquid coolant from~~ using that heat to drive a stream of liquid coolant to produce through a phase change into a stream of coolant vapor;

a condenser configured to dissipate heat from the stream of coolant vapor to add liquid coolant to the stream of liquid coolant; and

20 an airflow control structure extending substantially across an intermediate portion of the chassis to define two chambers, the airflow control structure including an air mover configured to move air from a first chamber of the two chambers to a second chamber of the two chambers;

25 wherein the air mover directs airflow both to cool one or more additional components, and to cool the condenser;

wherein the chassis includes an intake vent that ventilates the first chamber such that the air mover is configured to draw air into the first chamber through the intake vent; and

30 wherein the chassis includes an exhaust vent that ventilates the second chamber such that the air mover is configured to move air heated by the condenser from the second chamber through the exhaust vent.

20. (previously presented) The modular computer system of claim 19, wherein the air mover is a plurality of fans extending substantially across an intermediate portion of the chassis.

5 21. (currently amended) A modular computer system for mounting in a multi-tiered support, comprising:

a computer chassis configured for mounting in the multi-tiered support;
a first computer component, which requires cooling, within the computer chassis;
one or more additional computer components, which require cooling, within the

10 computer chassis;

a body within the chassis, the body defining a plurality of cooling fins and a fluid passageway in thermal communication with the cooling fins, the fluid passageway being configured to place fluid in thermal communication with the first computer component to dissipate heat from the first computer component via the fins; and

15 an air mover configured to cool the plurality of cooling fins, wherein the air mover forces air through the cooling fins, and wherein the air mover forces the resulting airflow into thermal communication with the one or more additional computer components.

22. (currently amended) A modular computer system for mounting in a multi-tiered support, comprising:

a computer chassis configured for mounting in the multi-tiered support;

a first computer component within the computer chassis;

5 one or more additional computer components within the computer chassis;

an evaporator in thermal communication with the first computer component, the evaporator being configured to dissipate heat from the first computer component by evaporating liquid coolant from a stream of liquid coolant to produce a stream of coolant vapor;

10 a condenser configured to ~~dissipate~~ be cooled by dissipating heat from the stream of coolant vapor into an airstream, and thereby to add liquid coolant to the stream of liquid coolant;

an air mover configured to ~~cool~~ create the airstream that cools the condenser, ~~wherein the air mover forces airflow that cools the condenser, and~~ wherein the air mover forces ~~airflow~~ the airstream into thermal communication with the one or more additional computer components.

23. (previously presented) The modular computer system of claim 22, wherein:

20 the air mover is a plurality of fans extending substantially across an intermediate portion of the chassis to define two chambers, the plurality of fans being configured to move air from a first chamber of the two chambers to a second chamber of the two chambers;

the chassis includes an intake vent that ventilates the first chamber such that the air mover is configured to draw air into the first chamber through the intake vent; and

25 the chassis includes an exhaust vent that ventilates the second chamber such that the air mover is configured to move air heated by the condenser from the second chamber through the exhaust vent.